

Door for closing a cooking compartment of a cooking applianceDescription

5 The present invention relates to a door for closing a cooking compartment of a cooking appliance, for example of a combination steamer for hot-air and/or steam treatment, with and without a mobile plate rack which is inserted in the cooking appliance above a lower branch of the same and having a sealing plate for sealing the cooking compartment opening in the region of a mobile plate rack bar.

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From DE 33 16 221 A1, a door for closing a cooking compartment of a cooking appliance is known, in which a mobile plate rack can also be inserted into the cooking compartment.

15 Mobile plate racks, that is to say fixed units made up of plate racks and trolleys and having a mobile plate rack bar, for the cooking of meals and foods, are inserted into the cooking compartment for example of a combination steamer in the manner described in the introduction. For the closing of the cooking compartment door behind the inserted mobile plate rack, the door is provided in the lower region with
20 an inner recess. For the sealing of the cooking compartment opening, the mobile plate rack is provided with a sealing plate. A door of the generic type is obtained in the use of a mobile plate rack as presented in the prospectus of the company Rational AG "Original Rational Zubehör" ("Original Rational Accessories") of March 2002, for example on page 6. The mobile plate racks which are shown there
25 have in the region of the mobile plate rack bar a sealing plate, which serves to seal the cooking compartment opening.

If no mobile plate rack is present in the combination steamer and this, for example, is to be preheated or cleaned, then the sealing plate of the mobile plate rack must
30 be replaced by another sealing element. In the prior art, this is done via a replacement sealing plate which can be hung in the cooking compartment door. This has the drawback, however, that it is easily forgettable and is awkward to handle.

35 The object of the present invention is therefore to further develop the door of the generic type in such a way that the abovementioned drawbacks are eliminated, or at least reduced.

According to the invention, this object is achieved in the door of the generic type by the fact that the door is provided with a captively mounted replacement sealing plate, which is movable between a rest position and an operating position in which it serves as a replacement for the sealing plate of the mobile plate rack.

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According to one specific embodiment of the invention, the replacement sealing plate can be made displaceable.

10 In particular, it can herein be envisaged that the replacement sealing plate, in the rest position, is arranged parallel and adjacent to the outer door frame.

Advantageously, the replacement sealing plate is laterally guided via two slideways on each side.

15 Alternatively, the replacement sealing plate can be made pivotable.

In particular, it can herein be envisaged that the replacement sealing plate is pivotable by at least 180 degrees.

20 Expediently, the replacement sealing plate, in the rest position, is arranged parallel and adjacent to the outer door frame.

Advantageously, the replacement sealing plate is pivotable by two pivot bearings on each side.

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In particular, it can herein be envisaged that the two pivot bearings on each side are vertically spaced.

30 According to a further specific embodiment of the invention, it can be envisaged that an openable inner pane and an outer pane are provided and the replacement sealing plate, in the rest position, is disposed between the inner and the outer pane.

In particular, it can herein be envisaged that the replacement sealing plate is pivotable about a horizontal rotation axis.

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Finally, the rotation axis favorably extends beneath the inner pane.

The invention is based on the astonishing perception that, as a result of the captive mounting of the replacement sealing plate, which mounting is movable between a rest position and an operating position, the provision of a replacement sealing plate in the absence of a mobile plate rack is not so easily forgettable and is easy to handle. In addition, the replacement sealing plate is captive.

Further features and advantages of the invention will become apparent from the claims and the following description, in which three illustrative embodiments are explained in detail with reference to the schematic drawings, in which:

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figure 1 shows a cooking appliance with an inserted mobile plate rack and with a door according to a first specific embodiment of the invention in sectional view;

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figure 2 shows the cooking appliance of figure 1 without inserted mobile plate rack in sectional view;

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figure 3 shows a cooking appliance with inserted mobile plate rack and with a door according to a second specific embodiment of the invention in sectional view;

figure 4 shows the cooking appliance of figure 3 without inserted mobile plate rack in sectional view;

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figure 5 shows a cooking appliance with inserted mobile plate rack and with a door according to a third specific embodiment of the invention in sectional view; and

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figure 6 shows the cooking appliance of figure 5 without inserted mobile plate rack in sectional view.

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The door 10 shown in figure 1 has in its upper region an inner pane 12 and an outer pane 14. In the lower region of the inner pane 12 there is disposed a combined inner pane and mobile plate rack sealing-plate seal 16. Located beneath the inner pane 12 and the outer pane 14, in an inner recess 18 on both sides, there are respectively vertically spaced pivot bearings, of which only two pivot bearings labeled with the reference symbols 20 and 22 can be seen. The pivot bearings are used for the pivotable mounting of a replacement sealing plate 24. In figure 1, the

replacement sealing plate 24 is in its rest position, in which it is arranged adjacent and parallel to an outer door frame 26.

- 5 The door 10 closes the cooking compartment 28 of a cooking appliance 30, which is configured as a standing cooking appliance. A mobile plate rack 32 is inserted in the cooking compartment 28 above the lower branch 33 of its U-shaped mobile plate rack bar 34, which is open in the direction of the cooking appliance 30. The mobile plate rack 32 has a sealing plate 36 for sealing the cooking compartment opening 38 in the region of the mobile plate rack bar 34. The sealing is in this case
10 effected in conjunction with a cooking compartment seal 40, which extends beneath the upper branch 42 of the mobile plate rack bar 34 horizontally into the drawing plane of figure 1. A corresponding cooking compartment seal 44 is provided in the upper region of the inner pane 12.
- 15 In figure 2, the door 10 of figure 1 is likewise closed, but without inserted mobile plate rack. It can be seen how, by pivoting of the replacement sealing plate 24 by more than 180 degrees out of its rest position into its operating position, the same has taken the place of the sealing plate 36 of the mobile plate rack 32 of figure 1.
- 20 Figure 3 shows an embodiment of the door 10 according to the invention, in which a replacement sealing plate 24 can be pivoted, about a rotation axis 46 disposed beneath an inner pane 12 and extending horizontally into the drawing plane of figure 3, out of a rest position, in which the replacement sealing plate 24 is located essentially parallel to the inner pane 12 between the same and an outer pane 14, by
25 about 180 degrees downward into an operating position, in which it takes the place of the sealing plate 36 of a mobile plate rack 32 (see figure 4). For the pivoting of the replacement sealing plate 24 out of its rest position, the inner pane 12 must be pivoted in the open state of the door 10, for example upward.
- 30 In figures 5 and 6, an embodiment of the door 10 according to the invention is shown, in which a replacement sealing plate 24 guided on both sides by, respectively, two slideways, of which only two, at 48 and 50, are shown. The replacement sealing plate 24 is thereby able to be moved between a rest position, in which it is located parallel and adjacent to an outer door frame 26 (see figure 5),
35 and an operating position, in which it takes the place of a sealing plate 36 of a mobile plate rack 32 (see figure 6).

In all described embodiments, the replacement sealing plate is captively mounted and can be easily brought out of a rest position into an operating position, and vice versa.

- 5 The features of the invention which are disclosed in the above description, in the drawings and in the claims can be essential, both individually and in any chosen combinations, for the realization of the invention in its various embodiments.

Reference list

10	door
12	inner pane
14	outer pane
16	inner pane and mobile plate rack sealing plate seal
18	recess
20,22	pivot bearing
24	replacement sealing plate
26	outer door frame
28	cooking compartment
30	cooking appliance
32	mobile plate rack
33	branch
34	mobile plate rack bar
36	sealing plate
38	cooking compartment opening
40	cooking compartment seal
42	branch
44	cooking compartment seal
46	rotation axis
48, 50	slideways